

Tool 3

Maryland Monitoring Resources

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Monitoring Data Resources

This tool lists available watershed monitoring data sources that have been identified for watershed planning in Maryland. This includes water quality, flows, biological monitoring, and physical data. These data sources are presented in Table 1 and are grouped into two tiers. The first tier of data resources are those deemed most useful based on their accessibility, coverage area, user-friendliness, and relevance to watershed planning. Tier 2 resources are less comprehensive, have a narrower focus, or provide only narrative data (e.g. impaired segments of a waterbody). Each resource is briefly described and a web link is provided.

Table 1: Monitoring Resources for Watershed Planning in Maryland			
Source	Name of Resource	Description	Website
Tier 1 Resources			
MD DNR	Eyes on the Bay	Includes links to water quality data, (continuous monitoring and fixed station monthly monitoring data), as well as water quality mapping of various rivers.	http://mddnr.chesapeakebay.net/eyesonthebay/index.cfm
MD DNR	Maryland Biological Stream Survey (MBSS) Data Search	Searchable MBSS data by county, stream, site, etc. Includes WQ, habitat, macros, and fish.	http://mddnr.chesapeakebay.net/mbss/search.cfm
MD DNR	Surf Your Watershed	A cooperative effort between MDE and DNR to maintain a catalog of important environmental and programmatic information for MD's 8-digit watersheds.	www.dnr.state.md.us/watersheds/surf
MD DNR	Watershed Restoration Action Strategies	Stream Corridor Assessment survey data of streams with Watershed Restoration Action Strategies.	http://www.dnr.state.md.us/watersheds/surf/proj/wras.html
Chesapeake Bay Program	Living Resources Monitoring	Searchable CBP databases (water quality, toxics, point sources, benthic macroinvertebrate, plankton, SAV) as well as links to other sites described herein.	http://www.chesapeakebay.net/monprgms.htm

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Chesapeake Bay Program	Watershed Model Phase 4.3	Estimates nutrient and sediment delivery to the Chesapeake Bay based upon regional variables. This model is a linked application of five models: airshed, watershed, estuarine hydrodynamic, estuarine hydrodynamic, and living resources models.	http://www.chesapeakebay.net/model.htm
EPA (various sources)	STORET (short for STORage and RETrieval)	Repository for National water quality, biological, and physical data. If unfamiliar with STORET, the Training Exercise helps with downloading data and importing into Excel. MDE, USGS, and MD DNR data reported here.	http://www.epa.gov/STORET/index.html
USGS	Chesapeake Bay River Input Monitoring Program	Data retrieval of water quality (concentrations), stream flow, and loads (such as TSS, nitrogen, or phosphorous) for select Maryland stations.	http://va.water.usgs.gov/chesbay/RIMP/dataretrieval.html
USGS	National Water Information System (NWIS) Data for Maryland	Data from selected surface-water, ground-water, and water-quality sites in Maryland.	http://waterdata.usgs.gov/md/nwis/nwis
MDE	Maryland 303(d) List Search	Online access and user defined query of the State's 303(d) List.	http://www.mde.state.md.us/Programs/WaterPrograms/TMDL/Maryland%20303%20dlist/303d_search/
MDE	Fish and Shellfish Contaminant Monitoring	Information and reports related to chemical levels measured in fish and shellfish tissue. Also contains fish consumption information.	http://www.mde.state.md.us/CitizensInfoCenter/FishandShellfish/index.asp
Tier 2 Resources			
EPA	Nutrient Water Quality Criteria	Database of nutrient water quality. Can run query by state, county and site. Data for Maryland limited to 1990-1996.	http://www.epa.gov/waterscience/criteria/nutrient/database/index.html
EPA	Permit Compliance System	Provides information about NPDES facilities permits and compliance status. Searchable by region.	http://www.epa.gov/enviro/html/pcs/index.html

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Source	Name of Resource	Description	Website
MD DNR	Tidal Fish Survey	Survey documents annual year-class success for young-of-the-year (YOY) striped bass and relative abundance of many other fish species in Chesapeake Bay. Data presented by River, not by station.	www.dnr.state.md.us/fisheries/juvinindex/
National Estuarine Research Reserve System (NERR)	NERR System Wide-Monitoring Program	Water quality and meteorological data for select stations in the Chesapeake Bay watershed.	http://cdmo.baruch.sc.edu/home.html
NOAA, National Marine Fisheries Service	Fishery surveys in the Chesapeake Bay	Searchable databases for the following survey types: winter dredge, juvenile striped bass, and trawl for Maryland sites.	http://noaa.chesapeakebay.net/surveys.htm
USGS	Water quality assessment of the Potomac River Basin	Water quality and spatial data for selected Potomac stations for the years 1992-1996.	http://md.water.usgs.gov/pnawqa/datarpt/
USGS	WaterWatch	Clickable map of stream gauging sits in Maryland; compares current and historical streamflow. Links to other stream flow parameters (flood, high flows, averages) and data summary options (plot or table).	http://water.usgs.gov/cgi-bin/waterwatch?map_type=real&state=MD
Alliance for the Chesapeake Bay	Alliance Citizen Monitoring Database	A database about volunteer-based water monitoring organizations in the Chesapeake Bay includes descriptions of data and how to obtain access to data. Search by Program Name or Geographic extent to get relevant information.	http://www.acb-online.org/project.cfm?vid=217
Susquehanna River Basin Commission	Nutrient and Sediment Data	Hydrologic conditions, nutrient and sediment loads, trends, and data. Includes easily viewed maps of various GIS layers.	http://www.srbcb.net/nutrientprogram.htm

Other Useful Resources

US EPA Surf Your Watershed

Provides general information on the health of your watershed, watershed groups, groundwater, and air quality.

<http://www.epa.gov/surf/>

US EPA National Assessment Database

In the National Assessment Database (NAD), assessed waters are classified as either Fully Supporting, Threatened, or Not Supporting their designated uses. This information is reported in the National Water Quality Inventory Report under Section 305(b) of the Clean Water Act.

<http://www.epa.gov/waters/305b/>

Maryland Department of the Environment TMDL

Includes everything you need to know about TMDL's in Maryland including regulatory background, definition and how to calculate.

<http://www.mde.state.md.us/Programs/WaterPrograms/TMDL/home/index.asp>

Maryland 2002 Section 303(d) List

Includes everything you need to know about Maryland's 2002 Integrated 303(d) List as well as the list, sorted by watershed or by impairment (i.e., bacteria, metals, nutrients, etc.).

http://www.mde.state.md.us/Programs/WaterPrograms/TMDL/Maryland%20303%20dlist/2002_303d_list.asp

North American Breeding Bird Survey

The BBS is a large-scale survey of North American birds. It is a roadside survey, primarily covering the continental United States and southern Canada. The primary objective of the BBS has been the estimation of population change for songbirds. However, the data have many potential uses, and investigators have used the data to address a variety of research and management objectives. <http://www.mbr-pwrc.usgs.gov/bbs/intro04.html>

North American Amphibian Monitoring Program

The NAAMP is a collaborative effort among regional partners, such as state natural resource agencies and nonprofit organizations, and the USGS to monitor populations of vocal amphibians. The regional partners recruit and train volunteer observers to collect amphibian population data, following the protocol of the NAAMP. Amphibian population data are collected using a calling survey technique, in which observers identify local amphibian species by their unique vocalizations.

<http://www.pwrc.usgs.gov/NAAMP/database/>